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**Tier I Operating Permit Renewal Application  
Potlatch Forest Products Corporation  
St. Maries Lumber Drying Division**

St. Maries, Idaho

*Prepared for:*

**Potlatch Forest Products Corporation  
St. Maries Lumber Drying Division**

2200 Railroad Avenue  
St. Maries, Idaho 83861

June 2007

Project No. 10258

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## ACRONYMS

CAAA	Clean Air Act Amendments
CFR	Code of Federal Regulations
CO	Carbon Monoxide
DEQ	Idaho Department of Environmental Quality
EU	Emission Unit
EPA	U.S. Environmental Protection Agency
IDAPA	Idaho Administrative Procedures Act
IEU	Insignificant Emission Unit
LDD	Lumber Drying Division
MACT	Maximum Achievable Control Technology
MBF	Thousand Board Feet
NESHAP	National Emission Standards for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NO <sub>x</sub>	Nitrogen Oxides
PM-10	Particulate Matter with an aerodynamic diameter of 10 µm or less
PFPC	Potlatch Forest Products Corporation
PSD	Prevention of Significant Deterioration
PTC	Permit to Construct
SO <sub>2</sub>	Sulfur Dioxide
TPY	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compounds



**TIER I OPERATING PERMIT RENEWAL APPLICATION**  
Lumber Drying Division  
St. Maries, Idaho

**1.0 INTRODUCTION**

This application is submitted for Potlatch Forest Products Corporation (PFPC) Lumber Drying Division (LLD), a lumber drying facility located in St. Maries (hereafter, the “Facility”). The Facility is governed by a Tier I operating permit issued on December 24, 2002 (T1-040125) and a Tier II operating permit July 21, 2005 (T2-040124). Consistent with IDAPA 58.01.01.313.03, PFPC is submitting this renewal application six months prior to the December 24, 2007 expiration of the existing Tier I permit.

This application presents the information required by IDAPA 58.01.01.314 for the facility’s current operations. DEQ’s checklist of required information is provided as Appendix A. Appendix B contains DEQ’s standard *General Information* form and a signed compliance statement that addresses the requirements in IDAPA 58.01.01.314.01.a and 314.09.a. A list of Insignificant Emission Units (based on size or production rate) is provided in Appendices C. Appendix D identifies facility-wide and emission unit-specific conditions that already apply to the Facility. Appendix E lists potentially applicable federal and state regulations. A process flow diagram is provided in Appendix F.

PFPC also owns and operates another facility that manufactures lumber and plywood in St. Maries, Idaho. That facility is known as the St. Maries Complex, and is located on the Coeur d’Alene Indian Reservation. Because it is located on Indian lands, the St. Maries Complex is regulated by the U.S. Environmental Protection Agency (EPA). Appropriate Title V applications and certifications for that facility have been submitted to EPA.

The Lumber Drying Division and the St. Maries Complex are located on separate parcels of property, in separate sovereign territories, and within separate jurisdictions for purposes of environmental regulatory authority. In 1997, however, the Idaho Department of Environmental Quality determined that EPA’s Part 71 operating permit program would extend to both operations. At that time, Potlatch requested reconsideration of this determination in light of the unique circumstances and the potential for confusing regulatory implementation. To date, no further review of this complicated regulatory situation has been undertaken by IDEQ.

Without waiving PFPC's position that the sources are more appropriately regulated separately, PFPC has attempted since 1997 to conform to this unusual regulatory framework by providing information to both EPA and IDEQ about both the sources. Notably, both EPA and IDEQ have treated Lumber Drying Division and the St. Maries Complex as separate sources for ten years. For example, inconsistent with its own 1997 determination that the EPA's permit programs would apply to the Lumber Drying Division, IDEQ subsequently issued two operating permits to PFPC for operations of the Lumber Drying Division: a Tier I operating permit in 2002 and a Tier II operating permit in 2005. Also inconsistent with the IDEQ determination that EPA's authority would extend to the Lumber Drying Division is IDEQ's annual collection of Part 70 operating permit fees for air emissions from this facility. EPA's operating permit for the St. Maries Complex has not yet been issued.

As anticipated by Potlatch in 1997, implementation of IDEQ's determination to consider the Lumber Drying Division as the same source as the St. Maries Complex (despite the distinct circumstances of location, territory, and jurisdiction) has led to cumbersome application of the air programs and even after ten years IDEQ and EPA consider the sources separately in regulatory action. For PFPC this approach imposes a confusing regulatory framework in which to operate.

For over ten years now PFPC has attempted to conform to the unusual framework established by IDEQ. PFPC would prefer to consider the two operations separate for regulatory and permitting purposes in light of the unique circumstances and confusing implementation. The pattern of regulatory action by IDEQ (permitting and fee collection) over the past 10 years reflects the more appropriate approach of considering Lumber Drying Division separate and subject to State jurisdiction, while the St. Maries Complex is another separate source subject to EPA jurisdiction. Accordingly, PFPC renews its request for IDEQ to reconsider the treatment of the Lumber Drying Division and the St. Maries Complex for air quality purposes.

Notwithstanding this request and the reasonableness of reconsidering the 1997 determination, PFPC provides in this application information that attempts to conform to the unusual framework established by IDEQ. For example, Lumber Drying Division is not a major source of HAPs as established by the emissions tables in this application. If emissions from the Lumber Drying Division are combined with emissions from the St. Maries Complex, however, then the total exceeds major source thresholds. Accordingly, and without waiving the argument supporting the separateness of each source, PFPC presents applicable requirements for the Lumber Drying Division based upon the combined (Lumber Drying Division and



St. Maries Complex) emissions estimates. Similarly, the Lumber Drying Division is not a major source for Title V absent the combined emissions from St. Maries Complex.

Nonetheless, in attempt to conform to IDEQ's 1997 determination and without waiving the argument supporting the separateness of each source, PFPC presents this Tier I renewal application.



## **2.0 FACILITY LOCATION, NAAQS STATUS AND PROCESS DESCRIPTION**

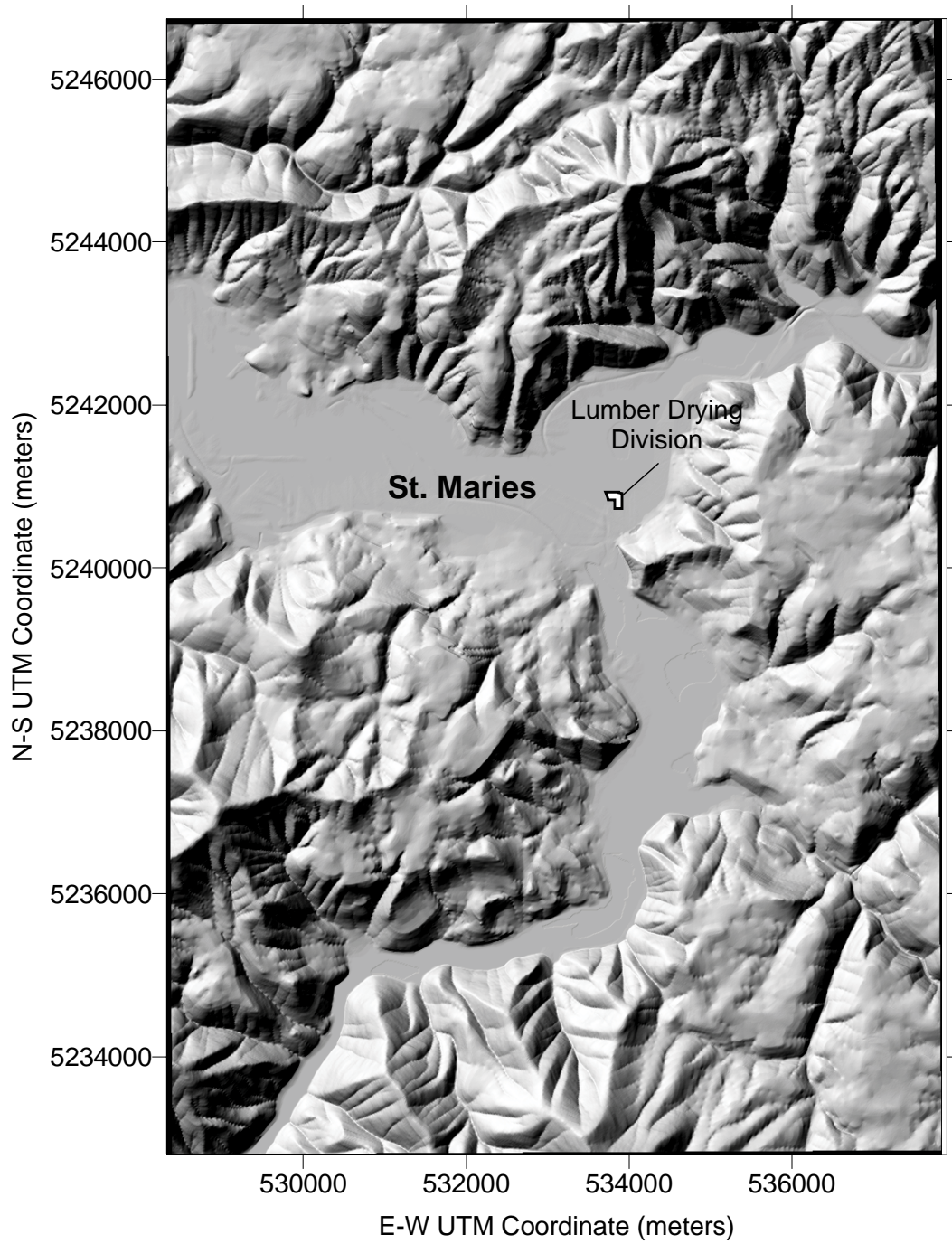
The Facility is located in St. Maries, in Benewah County (**Figure 1**). Benewah County is designated as unclassifiable/attainment for all criteria pollutants (40 CFR § 81.313). **Figure 2** provides a facility plot plan depicting key building locations.

The Lumber Drying Division in St. Maries dries dimensional lumber. The facility consists of a woodwaste-fired boiler (the Hurst boiler) and four 68-foot long, double-track, steam-heated lumber dry kilns. Steam used in the drying process is provided by the Hurst boiler, which combusts hog fuel and shavings from the St. Maries Complex lumber sawmill. To control emissions, exhaust gas passes through a multiclone and an electrostatic precipitator (ESP) with two transformer rectifiers. Rated at 49 MMBtu/hr, the boiler produces up to 34,500 pounds of steam per hour.

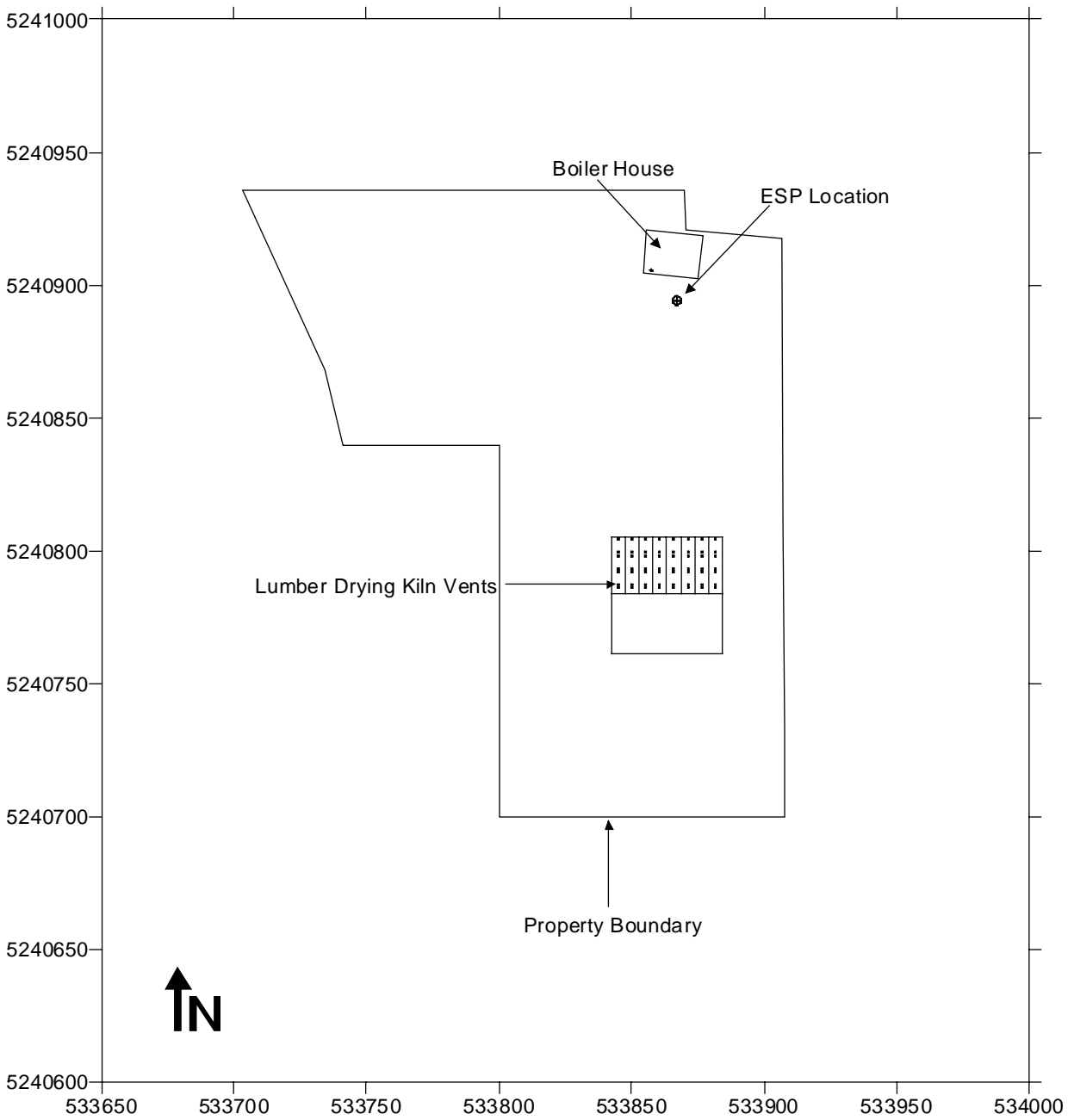
Lumber is transported to the site via trucks. The lumber typically consists of Douglas Fir, Western Red Cedar, Grand Fir, and Hemlock, with smaller amounts of Lodgepole Pine, Subalpine Fir, and Engelmann Spruce. The facility is also capable of drying Ponderosa Pine and White Pine. Lumber is unloaded from trucks and placed in green storage or loaded on to the in-feed tracks of the kilns. When a charge is created, it is pushed into the kilns, the doors are shut, and the charge is placed on an appropriate schedule (or recipe). Emissions from the kilns are uncontrolled. The kilns typically process about 90 million board feet (mmbf) per year.

When drying is completed, the load is pushed out and downloaded to a waiting truck or to dry storage. Temperatures reach 190°F and the target moisture content of the wood is 19 percent or less. All lumber dried at the Lumber Drying Division is trucked to the planer facility at the St. Maries Complex lumber mill. The lumber is then dressed, graded, and packaged for shipment.

Until recently, plywood was also treated with an oil and edge-seal at the Facility. However, that process has been removed from the Lumber Drying Division and PFPC requests that the Tier I conditions related to that process be removed from the permit.



**FIGURE 1. LUMBER DRYING DIVISION LOCATION**



**FIGURE 2. FACILITY PLOT PLAN**



### 3.0 EMISSION SOURCES AND ESTIMATES

This section addresses Facility emissions of criteria pollutants and HAPs (as defined by IDAPA 58.01.01.006.81) and TAPs (defined by IDAPA 58.01.01.585 and 586).

The existing Tier I permit aggregates emission sources at the Facility into three emission units:

- EU3: Hurst boiler
- EU4: Dry kilns (four)
- EU5: Oil and edge seal process (no longer located at the Lumber Drying Division)

Table 3-1 summarizes stack parameters for the boiler and dry kilns. Table 3-2 summarizes facility-wide potential emissions of criteria air pollutants. Additional detail is available in the following sections and in the forms provided in Appendix B.

**TABLE 3-1. POINT EMISSION SOURCES AND PARAMETERS**

Source Identification Number	Associated Building	Stack Height (ft)	Stack Diameter (ft)	Exhaust Temperature (F)	Exhaust Exit Velocity (acfm)	Exhaust Type
Dry Kiln Vents (14 per kiln)	Kilns	23.6	21"x21"	180	1,456/kiln	Vertical
Hurst Boiler	Boiler	50	3.16	450	22,000	Vertical

Note: Each of the 14 vents per kiln is a 21"x21" square. Seven alternatively serve as inlets, then as outlets. Approximately 208 acfm passes through each vent.

**TABLE 3-2. CRITERIA POLLUTANT POTENTIAL TO EMIT**

	NO <sub>x</sub>		CO		SO <sub>2</sub>		PM <sub>10</sub>		VOC	
	(lb/hr)	(T/yr)	(lb/hr)	(T/yr)	(lb/hr)	(T/yr)	(lb/hr)	(T/yr)	(lb/hr)	(T/yr)
Kilns	-	-	-	-	-	-	1.6	7.1	21.9	95.9
Hurst Boiler	8.4	36.7	6.5	28.6	0.2	0.7	5.7	25.1	0.1	0.4
<b>Total</b>	<b>8.4</b>	<b>36.7</b>	<b>6.5</b>	<b>28.6</b>	<b>0.2</b>	<b>0.7</b>	<b>7.4</b>	<b>32.2</b>	<b>22.0</b>	<b>96.2</b>

### 3.1 HURST BOILER

The wood fired Hurst boiler is rated at 34,500 pounds of steam per hour (approximately 49 million Btu/hr). The boiler provides steam heat to the four kilns used to dry lumber. PM emissions from the boiler are controlled by a multiclone and an electrostatic precipitator (ESP). The multiclone, installed with the boiler in 1987, removes larger particulate matter from the exhaust stream. Particulate matter emissions are further filtered by a McGill Air Clean Intercept Model 2-75 ESP, installed in 2002. Criteria pollutant emissions from the Hurst Boiler are listed in **Table 3-3**. Hourly emissions are based on the maximum firing rate; annual emissions are based on the maximum hourly emissions for 8,760 hours.

**TABLE 3-3. ESTIMATED HURST BOILER CRITERIA POLLUTANT EMISSIONS**

Pollutant	Potential to Emit	
	(lb/hr)	(tons/year)
NOx <sup>a</sup>	8.4	36.7
CO <sup>b</sup>	6.5	28.6
SO <sub>2</sub> <sup>a</sup>	0.16	0.7
PM-10 <sup>a</sup>	5.7	25.1
VOC <sup>b</sup>	0.08	0.4

a - Emission rates from August 4, 2004 source test. Test conducted while boiler at maximum steaming rate and both TR sets operating.

b - Emission rates from 1994 source test. Although CO and VOC were measured during the August 2004 test, the results were not valid. The CO testing equipment was damaged in transit to the test and the VOC results were nullified by IDEQ after the test completion.

The Hurst boiler also emits chemical compounds deemed toxic air pollutants (TAPs) by IDAPA 58.01.01.586 and hazardous air pollutants (HAPs) under CAA section 112(b). Table 3-4 identifies emission factors and TAP/HAP emissions associated with the Hurst boiler.



**TABLE 3-4. ESTIMATED BOILER TAP/HAP POTENTIAL EMISSIONS**

Pollutant	Emission Factor <sup>a</sup>	Potential to Emit		CAS No.	HAP?
	(lb/MMBtu)	(lb/hr)	(tons/year)		
Acetaldehyde	1.64E-04	8.03E-03	3.52E-02	75-07-0	Yes
Acetone	2.15E-04	1.05E-02	4.61E-02	67-64-1	
Acetophenone	3.23E-09	1.58E-07	6.92E-07	98-86-2	Yes
Acrolein	3.15E-05	1.55E-03	6.77E-03	107-02-8	Yes
Antimony	2.29E-05	1.12E-03	4.91E-03	7440-36-0	Yes
Arsenic	5.62E-06	2.75E-04	1.21E-03	7440-38-2	Yes
Barium	3.47E-04	1.70E-02	7.45E-02	7440-39-3	
Benzene	7.42E-04	3.64E-02	1.59E-01	71-43-2	Yes
Beryllium	1.55E-06	7.60E-05	3.33E-04	7440-41-7	Yes
Bis(2-ethylhexyl)phthalate	4.65E-08	2.28E-06	9.98E-06	117-81-7	Yes
Bromomethane	2.80E-05	1.37E-03	6.01E-03	74-83-9	Yes
Butanone-2 (MEK)	5.39E-06	2.64E-04	1.16E-03	78-93-3	
Cadmium	2.90E-06	1.42E-04	6.23E-04	7440-43-9	Yes
Carbon Tetrachloride	4.54E-05	2.22E-03	9.74E-03	56-23-5	Yes
Chlorine	7.92E-04	3.88E-02	1.70E-01	7782-50-5	Yes
Chlorobenzene	3.32E-05	1.63E-03	7.13E-03	108-90-7	Yes
Chloroform	2.75E-05	1.35E-03	5.91E-03	67-66-3	Yes
Chloromethane	2.31E-05	1.13E-03	4.96E-03	74-87-3	Yes
Chlorophenol-2	3.37E-08	1.65E-06	7.24E-06	108-43-0	
Chromium, hexavalent	1.75E-07	8.59E-06	3.76E-05	18540-29-9	
Chromium, trivalent	1.54E-06	7.53E-05	3.30E-04	7440-47-3	Yes
Cobalt	1.25E-07	6.13E-06	2.68E-05	7440-48-4	Yes
Copper	7.44E-06	3.65E-04	1.60E-03	7440-50-8	
Crotonaldehyde	9.91E-06	4.86E-04	2.13E-03	4170-30-3	
Dibromoethene-12	5.48E-05	2.69E-03	1.18E-02	106-93-4	Yes
Dichloroethane-12	2.92E-05	1.43E-03	6.27E-03	107-06-2	Yes
Dichloromethane	2.87E-04	1.41E-02	6.16E-02	75-09-2	Yes
Dichloropropane-12	3.33E-05	1.63E-03	7.15E-03	78-87-5	Yes
Dinitrophenol-24	9.33E-08	4.57E-06	2.00E-05	51-28-5	Yes
Ethylbenzene	3.13E-05	1.53E-03	6.72E-03	100-41-4	Yes
Formaldehyde	1.72E-03	8.42E-02	3.69E-01	50-00-0	Yes
Hydrogen chloride	3.50E-03	1.72E-01	7.51E-01	7647-01-0	Yes
Lead	4.95E-05	2.42E-03	1.06E-02	7439-92-1	Yes
Manganese	9.81E-05	4.81E-03	2.11E-02	7439-96-5	Yes
Mercury	4.16E-07	2.04E-05	8.92E-05	7439-97-6	Yes
Methanol	8.30E-04	4.07E-02	1.78E-01	67-56-1	Yes
Molybdenum	2.07E-06	1.01E-04	4.43E-04	7439-98-7	
Naphthalene	9.46E-05	4.63E-03	2.03E-02	91-20-3	Yes
Nickel	2.53E-06	1.24E-04	5.42E-04	7440-02-0	Yes
Nitrophenol-4	1.71E-07	8.39E-06	3.68E-05	100-02-7	Yes
Nitrous Oxide (N2O)	1.33E-02	6.53E-01	2.86E+00	10024-97-2	
Pentachlorophenol	2.27E-08	1.11E-06	4.87E-06	87-86-5	Yes
Phenol	1.25E-05	6.14E-04	2.69E-03	108-95-2	Yes
Phosphorus	3.54E-05	1.73E-03	7.60E-03	7723-14-0	Yes

Pollutant	Emission Factor <sup>a</sup>	Potential to Emit		CAS No.	HAP?
	(lb/MMBtu)	(lb/hr)	(tons/year)		
PAH	1.80E-08	8.84E-07	3.87E-06	PAH	
Propionaldehyde	6.11E-05	2.99E-03	1.31E-02	123-38-6	Yes
Selenium	1.74E-06	8.54E-05	3.74E-04	7782-49-2	Yes
Silver	1.74E-03	8.50E-02	3.72E-01	7440-22-4	
Styrene	1.86E-03	9.11E-02	3.99E-01	100-42-5	Yes
Sulfuric Acid	1.18E-02	5.76E-01	2.52E+00	7664-93-9	
TCDD-Total	2.05E-10	1.00E-08	4.39E-08	1746-01-6	Yes
Tetrachloroethene	3.82E-05	1.87E-03	8.21E-03	127-18-4	Yes
Tin	6.63E-06	3.25E-04	1.42E-03	7440-31-5	
Toluene	2.13E-05	1.04E-03	4.56E-03	108-88-3	Yes
Trichloroethane-111	3.07E-05	1.51E-03	6.60E-03	79-00-5	Yes
Trichloroethene	3.03E-05	1.49E-03	6.51E-03	79-01-6	Yes
Trichlorophenol-246	1.14E-08	5.56E-07	2.44E-06	88-06-2	Yes
Vanadium	1.36E-06	6.66E-05	2.92E-04	1314-62-1	
Vinyl Chloride	1.84E-05	9.02E-04	3.95E-03	75-01-4	Yes
Xylene-o	2.45E-05	1.20E-03	5.25E-03	1330-20-7	Yes
Yttrium	3.01E-07	1.48E-05	6.47E-05	7440-65-5	
Zinc	2.32E-04	1.14E-02	4.98E-02	7440-66-6	
<b>Total HAPs</b>	<b>-</b>	<b>5.28E-01</b>	<b>2.31</b>		

(a) Emission factor from AP-42 Section 1.6, Table 1.6-3 adjusted for electrostatic precipitator emission control.

### 3.2 LUMBER DRYING KILNS

The four Coe/Moore lumber drying kilns were built in 1987. Each kiln has a series of vents that allow air to be drawn into the kiln, heated, and exhausted through other vents. The vents open and close automatically as the lumber is dried.

Air pollutant emissions from dry kilns depend on the species of wood dried and the throughput of the kilns for that species. Maximum potential throughputs, expressed in thousands of board feet (MBF), for the dry kilns are presented in Table 3-5. Actual throughput rates are much lower.

**TABLE 3-5. POTENTIAL KILN THROUGHPUT**

Tree Species	Average Hours per Charge	Average Bf per Charge	MBf per Day (4 Kilns)	MMBf per Year (4 Kilns)
Grand Fir, Hemlock	48.8	150,000	295	108
Douglas Fir/Larch	49.6	150,000	290	106
Engelmann Spruce/ Lodgepole Pine	29.6	150,000	486	178
Western Red Cedar	19.2	102,000	510	186

Table 3-6 summarizes emission factors for pollutants emitted from lumber dry kilns. Most emission factors are derived from small scale kiln studies.

**TABLE 3-6. DRY KILN EMISSION FACTORS**

Species	Pollutant					
	PM10	VOC	Acetaldehyde	Formaldehyde	Methanol	Phenol
	(lb/mbf)	(lb/mbf)	(lb/mbf)	(lb/mbf)	(lb/mbf)	(lb/mbf)
Grand Fir, Hemlock	0.5 <sup>a</sup>	0.20 <sup>b</sup>	0.0461 <sup>b</sup>	0.00004 <sup>b</sup>	0.1743 <sup>b</sup>	0.0011 <sup>b</sup>
Douglas Fir/Larch	0.02 <sup>a</sup>	0.49 <sup>c</sup>	-	0.001 <sup>c</sup>	0.023 <sup>c</sup>	0.004 <sup>d</sup>
Engelmann Spruce, Lodgepole Pine	0.08 <sup>e</sup>	1.08 <sup>f</sup>	-	0.004 <sup>f</sup>	0.060 <sup>f</sup>	-
Western Red Cedar	-	0.12 <sup>g</sup>	-	-	-	-

**Notes:**

a- Emissions from Oregon Department of Environmental Quality, June 2003 emission factor document.

b- Emissions from May 2005 small scale lumber kiln tests conducted for Potlatch at Oregon State University, Corvallis, Oregon (OSU)

c- Emission from Douglas Fir, September 2000 OSU report.

d- Emissions provided by Olympic Region Clean Air Authority, Olympia, Washington (ORCAA) for Douglas fir

e- Based on pine emission factor of 0.08 lb/mbf obtained from National Council for Air and Stream Improvement, Eugene, Oregon (NCASI)

f- Based on lodgepole pine, September 2000 OSU report.

g- Based on NCASI, provided by David Word

- (dash) indicates no emission factor available.

Calculated PM10 and VOC emission rates are listed in **Table 3-7** by assuming 100% utilization of the kilns for each tree species. The maximum potential PM10 and VOC emissions result from drying Engelmann Spruce, Lodgepole Pine (ESLP). In practice, however, ESLP accounts for only 10-15 percent of the annual production. Therefore, although we identify potential emissions based on drying 100 percent ESLP, there is a very real physical limit on the amount of ESLP that can be processed because it is simply not available in sufficient quantities to be processed 100 percent of the time. Nonetheless, the ESLP values are included in the facility-wide emission inventory presented in Table 3-2.

**TABLE 3-7. PM10 AND VOC EMISSION RATES, TOTAL FOR ALL KILNS**

	PM10		VOC	
	(lb/hr)	(tons/year)	(lb/hr)	(tons/year)
Grand Fir, Hemlock	0.6	2.7	2.5	10.9
Douglas Fir/Larch	0.2	1.1	5.9	26.0
Engelmann Spruce, Lodgepole Pine	1.6	7.1	21.9	95.9
Western Red Cedar	-	-	2.6	11.2
<b>Maximum</b>	<b>1.6</b>	<b>7.1</b>	<b>21.9</b>	<b>95.9</b>

- (dash) indicates no emission factor available.

Kilns also emit chemical compounds deemed TAPs by IDAPA 58.01.01.585-586 and hazardous air pollutants (HAPs) under CAA section 112(b). Table 3-8 identifies TAP and HAP emissions associated with the lumber drying kilns.

**TABLE 3-8. KILN TAP/HAP POTENTIAL EMISSIONS**

Species	Pollutant							
	Acetaldehyde		Formaldehyde		Methanol		Phenol	
	(lb/hr)	(T/yr)	(lb/hr)	(T/yr)	(lb/hr)	(T/yr)	(lb/hr)	(T/yr)
Grand Fir, Hemlock	0.6	2.5	0.005	0.02	2.14	9.39	0.01	0.06
Douglas Fir/Larch	-	-	0.01	0.05	0.28	1.22	0.05	0.21
Engelmann Spruce, Lodgepole Pine	-	-	0.08	0.36	1.22	5.33	-	-
Western Red Cedar	-	-	-	-	-	-	-	-
<b>Maximum</b>		<b>2.5</b>		<b>0.4</b>		<b>9.4</b>		<b>0.2</b>

- (dash) indicates no emission factor available.

### 3.3 OIL AND EDGE SEAL PROCESS

The oil and edge seal process, listed in the current Tier I permit as EU5, no longer exists at the Lumber Drying Division. The oil and edge seal process equipment was moved from the St. Maries Lumber Drying Division in 2006. Emissions and regulations relating to this process are now obsolete, and PFPC requests that DEQ remove EU5 from the re-issued Tier I permit.

### 3.4 PROCESS FUGITIVE EMISSIONS

Various fugitive PM<sub>10</sub> sources exist at the Lumber Drying Division, including paved and unpaved roads. The PM<sub>10</sub> emissions from these sources are insignificant.

### 3.5 INSIGNIFICANT SOURCES

Activities and emission units identified as insignificant under IDAPA 58.01.01.317.01(b) are required to be listed in a Tier I operating permit to qualify for a permit shield. These are listed in Appendix C.

## **4.0 POTENTIALLY APPLICABLE REGULATIONS**

The Facility is subject to federal and state air pollution control regulations. This section discusses applicable regulations and details why other federal and state regulations are not applicable.

### **4.1 FEDERAL REQUIREMENTS**

#### **4.1.1 National Emission Standards for Hazardous Air Pollutants**

The Clean Air Act Amendments of 1990 require EPA to establish technology-based standards to control hazardous air pollutants (HAPs). For MACT purposes, a major source is defined as one with a potential to emit (PTE) greater than 10 TPY of a single HAP or more than 25 TPY of all HAPs combined. As summarized in the emissions tables in this application, the Lumber Drying Division operated by PFPC is not a major source of HAPs.

As described in the Introduction to this application, however, PFPC conservatively combines the emissions from both locations to conform to a 1997 determination by IDEQ that considers the Lumber Drying Division the same source as the St. Maries Complex. Accordingly, the Hurst boiler would be subject to the Boiler MACT and the kilns would be subject to the Plywood and Composite Wood Products (PCWP) MACT standards. Because the Hurst boiler was operating at the Facility prior to January 2003, it would be subject only to those standards that apply to large existing solid-fuel boilers:

- A particulate matter emission limit of 0.07 lb/MMBtu or a total selected metals limit of 0.001 lb/MMBtu;
- An HCl emission limit of 0.09 lb/MBtu; and
- A Mercury emission limit of 0.000009 lb/MMBtu.

**Update:** On June 8, 2007, the D.C. Circuit Court of Appeals vacated the Boiler MACT. EPA is obligated now to review and rewrite that rule. In light of the Court's ruling, future revisions may not impact the specific emissions limits and operating requirements for the boiler; however that remains to be seen. Therefore, for purposes of this renewal application, Subpart DDDDD is currently not applicable to the boiler at the Lumber Drying Division. This content of the renewal application will be revised, if necessary, upon re-issuance of the Boiler MACT by EPA.

The only requirement for owners subject to the PCWP MACT operating only dry kilns is an initial notification; PFPC notified EPA of applicability on January 18, 2005. There are no emission limits or control requirements for lumber dry kilns under this MACT at this time.

**Update:** On June 19, 2007, the D.C. Circuit Court of Appeals remanded the PCWP MACT with respect to, among other things, the “no controls” requirement for lumber dry kilns. EPA is obligated now to review and rewrite portions of that rule. This content of the renewal application will be revised, if necessary, upon revision of the PCWP MACT by EPA.

#### **4.1.2 New Source Performance Standards**

EPA has established New Source Performance Standards (NSPS) for new, modified, or reconstructed facilities and source categories. NSPS Subpart Dc, Performance Standards for Small Industrial, Commercial, and Institutional Steam Generating Units applies to boilers with heat inputs between 10 and 100 MMBtu/hr. Although the Hurst boiler meets the size criteria, Subpart Dc does not apply to boilers that were installed prior to June 9, 1989 and have not been modified. The Hurst boiler was built in 1987, and the only change to the boiler has been the addition of an electrostatic precipitator in 2002. Consequently, Subpart Dc does not apply to the Hurst boiler at the Facility.

No other NSPS potentially apply to emission units at the Facility.

#### **4.1.3 Prevention of Significant Deterioration**

Lumber manufacturing facilities are not designated facilities under 40 CFR 52.21(b); as such, these types of facilities are deemed minor sources for the purposes of major new source review (i.e., the Prevention of Significant Deterioration (PSD) program in attainment or unclassified areas) unless emissions of a regulated pollutant equals or exceeds 250 tons per year.

As indicated in Table 3-2, the Facility’s PTE of any single regulated criteria pollutant is less than the 250 ton major source threshold. Accordingly, the Lumber Drying Division is not a major source with respect to the PSD program.

#### **4.1.4 Title IV Acid Rain Provisions**

Title IV of the federal Clean Air Act regulates sulfur dioxide and oxides of nitrogen emissions from fossil fuel-fired electrical generation facilities. The Facility is not subject to the Title IV Acid Rain Provisions in the Clean Air Act because it does not generate electricity.

#### **4.1.5 Title V Operating Permit**

EPA's Title V program is administered by DEQ in Idaho, and is referred to as the "Tier I Operating Permit Program" in Idaho. PFPC submits all reports and certifications to DEQ. Please refer to section 4.2.2 for additional discussion of the Tier I program applicability.

#### **4.1.6 Compliance Assurance Monitoring**

Subject to certain exemptions (40 C.F.R. § 64.2(b)), the Compliance Assurance Monitoring (CAM) rule requires certain major sources<sup>1</sup> using pollution control devices to meet an emission limit to employ parametric monitoring. The multiclone and ESP are the only control devices at the Facility, and CAM applies. However, PFPC submitted a CAM plan for the boiler with the 2004 Tier II permit application and the CAM provisions are already reflected in the current Tier I permit.

#### **4.1.7 Other potentially applicable requirements**

##### Asbestos NESHAP, 40 CFR 61 Subpart M

PFPC will comply with the applicable regulations in 40 CFR Part 61 Subpart M for any asbestos renovation.

##### Prevention of Accidental Releases, CAA § 112(r), 42 U.S.C. 7412(r)(1 ), and Chemical Accident Prevention, 40 CFR Part 68

PFPC will comply with the applicable parts of 40 CFR Part 68 if any chemicals are stored onsite above threshold quantities. There are currently no areas onsite that store listed chemicals above threshold quantities.

##### Protection of Stratospheric Ozone, Recycling and Emissions Reduction, 40 CFR 82 Subpart F

PFPC will comply with the applicable standards in 40 CFR 82 Subpart F for recycling and recovery of refrigerants.

Other potentially applicable requirements are summarized in Appendix F.

## **4.2 STATE REQUIREMENTS**

### **4.2.1 Permit to Construct Program**

DEQ's PTC regulations require all facilities to obtain a PTC or a documented exemption determination before beginning construction of a new source of air pollution or modifying an existing source in a manner that would cause its emissions to increase. The only PTC that has been issued to the Facility is P-009-00001, which was issued in 1999 for the installation of oil and end seal process equipment. In 2005, a Tier II/PTC permit (T2-040124) was issued that addressed the transfer of ownership to PFPC and added a CAM plan for the newly installed electrostatic precipitator. The Tier I permit was updated and reissued on September 27, 2006 to incorporate the Tier II conditions and CAM provisions.

PFPC will continue to comply with the requirements of the rule and will submit PTC applications before constructing any new sources or modifying any existing sources when a PTC is required.

### **4.2.2 Tier I Operating Permit**

The initial Tier I permit for the Facility was issued December 24, 2002. As noted above, the Tier I permit was reissued in 2006 to reflect the 2005 Tier II conditions. The current Tier I Operating Permit will expire on December 24, 2007. As required by IDAPA 58.01.01.313.03, the Facility must submit a complete renewal application at least six months prior to the permit expiration. This document meets the requirements of the renewal application. Appendix B provides the required compliance certifications.

Appendix C provides a listing of Insignificant Emission Units and activities at the Facility. Appendices D and E identifies facility-wide and emission unit specific conditions that apply or potentially apply to the Facility.

### **4.2.3 General State Requirements**

Idaho has no performance or technology standards specifically for lumber manufacturing facilities. Some additional applicable state requirements include:

- opacity [IDAPA 58.01.01.625]
- fugitive particulate matter emissions [IDAPA 58.01.01.650-651]

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<sup>1</sup> Major source has the same meaning as provided in 40 C.F.R. Part 70. 40 C.F.R. § 64.1.



- excess emissions [IDAPA 58.01.01.131]
- open burning [IDAPA 58.01.01.600]
- compliance testing [IDAPA 58.01.01.157]
- State-only requirements (which are not applicable within the meaning of 40 CFR Part 70) include:
  - nuisance odors (state-only) [IDAPA 58.01.01.776.01]
  - pollutants regulated by IDAPA 58.01.01.585-586 (state-only) [IDAPA 58.01.01.210; IDAPA 58.01.01.585-586]

A listing of the other potentially applicable federal and state air quality regulations is included as Appendix E.



## **5.0 COMPLIANCE CERTIFICATION**

The Facility is currently in compliance with all applicable requirements. Appendix D provides the current compliance status and an explanation of how the compliance determination was evaluated for each specific applicable requirement.

IDAPA 58.01.01.314.09.b mandates that the applicant provide a schedule for submitting compliance certifications during the Tier I permit term. The facility's current Tier I permit requires PFPC to submit semi-annual monitoring reports and an annual compliance certification. PFPC proposes that the reporting periods be January 1<sup>st</sup> through June 30<sup>th</sup>, and July 1<sup>st</sup> through December 31<sup>st</sup>.



## **6.0 COMPLIANCE PLAN AND SCHEDULE**

The Facility is currently in compliance with all applicable requirements. PFPC is not aware of any new potentially applicable federal or state requirements that will become effective during the term of the Tier I operating permit. However, if any applicable requirements take effect during the facility's Tier I operating permit term, PFPC will meet the applicable requirement as expeditiously as possible. If an applicable requirement with a specific timeline for compliance becomes effective during the permit term, PFPC will comply with the requirement on the schedule established by the requirement.



## **APPENDIX A**

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# **Air Quality Operating Permit Application Checklist**

## **Article I.      Completeness Determination Checklist and Application Index**

**Company Name**      Potlatch Forest Products Corporation  
**Location**      St. Maries, Idaho  
**Project**      Tier I Operating Permit Renewal Application  
**Reviewer** \_\_\_\_\_ **Date** \_\_\_\_\_

The attached forms have been provided as a checklist and application index, to ensure all the required information has been included with the air pollution source permit application. These forms shall be submitted along with the application. These checklist/index forms include the following elements of the permit application:

- Application forms
- Source descriptions
- Source flow diagrams
- Plot plans
- Emission estimate references and documentation
- Excess emission documentation
- Ambient air impact analysis
- Compliance certification plan

Each page of the permit application shall be numbered so that each page can be referenced individually. This will allow these checklist forms to act as the permit application table of contents.



**Article II.     APPLICATION FORMS**

SECTION	SOURCE	PAGE
1	Introduction	1
2	Process Description	4
3	Emission Sources and Estimates	9
4	Potentially Applicable Requirements	15
5	Compliance Certification	21, Appendix B
6	Compliance Plan and Schedule	23
Appendix A	Air Operating Permit Application Checklist	
Appendix B	Operating Permit forms, Compliance Certifications	
Section 3	Facility Wide Emission Inventory	
Appendix C	Insignificant Activities	
Appendix D	Requirement-Specific Compliance Certification and Demonstration Methodology	
Appendix E	Potentially Applicable Regulations	
Appendix F	Process Flow Diagram	

	<u>YES</u>	<u>NO</u>
· Is the application signed and dated?	x	_____
· Are all forms adequately completed?	x	_____

## **SOURCE DESCRIPTIONS**

SOURCE	PAGE		
General Facility Description	5		
Emission Unit Description	9-14		
	<u>YES</u>	<u>NO</u>	
· Are the existing facilities described?	x	_____	
· Are the modifications or new facilities described?	x	_____	
· Are all applicable processes, materials, ventilation, and controls described?	x	_____	
· Is all equipment referenced by specific ID name or number?	x	_____	

## **SOURCE FLOW DIAGRAMS**

SOURCE	PAGE		
Facility Plot Plan & Location Map	Figures 1 and 2		
Facility Process Flow Diagrams	Appendix F		
Facility Stack Locations	Figure 2		
	<u>YES</u>	<u>NO</u>	
· Are included?	X	_____	
· Shows entire existing facility?	x	_____	
· Shows entire future facility?	Not applicable	_____	
· Shows each process separately (if needed)?	x	_____	
· Details storage, roads, transfers, and processing?	NA	_____	
· Labeling is adequate (process and stacks identified, flow rates and process rates shown)?	x	_____	

## **PLOT PLANS**

SOURCE	PAGE	
DEQ General Information Form	Appendix B	
Facility Plot Plan & Location Map	Figures 1 and 2	
<hr/>		
	<u>YES</u>	<u>NO</u>
· Are included?	x	_____
· Shows location coordinates?	x	_____
· Shows plant boundaries?	x	_____
· Shows neighboring ownership and facilities?		Not applicable
· Shows topography	x	_____
· Scale shown or distances adequately labeled?	x	_____
· Shows all buildings, equipment, storage and roads?		Not Applicable
· Are adequate for both existing and future or, includes both?		Not Applicable

## **EMISSION ESTIMATE REFERENCES AND DOCUMENTATION**

SOURCE	PAGE
Production Data	Section 3
Emission Factors	Section 3
Emission Inventory	Section 3
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

	<u>YES</u>	<u>NO</u>
· All fugitive and point sources listed?	x	_____
· All pollutants addressed?	x	_____
· Process documentation and specs included?	x	_____
· Control equipment documentation and specs included?		<u>_x_</u>
· Emission factors documented and referenced?	x	_____
· Calculations and assumptions shown?	x	_____
· Source tests referenced (test includes processing and control device test conditions)?	x	_____

**EXCESS EMISSION DOCUMENTATION – Not applicable**

SOURCE

PAGE

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YES

NO

- All three types of excess emissions (startup, shutdown, and scheduled maintenance) covered for each source?
- Calculations and documentation included?
- Expected frequencies of excess emissions noted?
- Justification for amounts and frequencies of excess emissions?
- Procedures for minimizing excess emissions covered?

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**AMBIENT AIR IMPACT ANALYSIS - Not Applicable to Tier I Applications**

PROJECT	PAGE
Existing ambient air quality discussion including attainment status and classification of areas which may be significantly impacted	Not Applicable
Discussion of dispersion model used and assumptions	Not Applicable
Dispersion model input	Not Applicable
Dispersion model output	Not Applicable
Discussion of ambient impacts for each pollutant	Not Applicable
Discussion of how excessive impacts will be controlled or avoided for sources and pollutants with the potential for these	Not Applicable

## **COMPLIANCE CERTIFICATION PLAN**

SOURCE	PAGE
Specific Application Requirements and Compliance Certification	Appendix B
Proposed Compliance Demonstration Methods	Appendix D
Compliance Schedule	Not applicable
_____	_____
_____	_____
_____	_____
_____	_____
	<u>YES</u> <u>NO</u>
· Monitoring, record keeping, and reporting discussed?	x                  _____
· Stack testing methods thoroughly documented?	_____ Not Applicable
· Discussion and documentation of process control mechanisms used to meet emission limits?	_____ Not Applicable
· Quality assurance/quality control discussed?	_____ Not Applicable
· Monitoring equipment specs and documentation included?	_____ Not Applicable

## **APPENDIX B**

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# **Operating Permit Application Forms and Compliance Certification**



## Compliance Certification

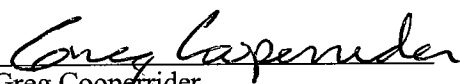
as established in IDAPA 58.01.01.314.01 and 314.09

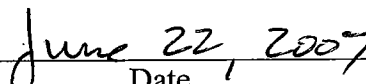
Based upon information and belief, formed after reasonable inquiry, I certify the following:

1. The statements and information provided in this Tier I operating permit application are true, accurate, and complete;
2. For each applicable requirement with which an emissions unit is in compliance, I certify that the emissions unit will continue to comply with the applicable requirement;
3. For each applicable requirement that will become effective during the term of the Tier I operating permit that does not contain a more detailed schedule, I certify that the emissions unit will meet the applicable requirement on a timely basis;
4. For each applicable requirement that will become effective during the term of the Tier I operating permit that contains a more detailed schedule, I certify that the emissions unit will comply with the applicable requirement on the schedule provided in the applicable requirement;
5. For each applicable requirement with which the emissions unit is not in compliance, I certify that the emissions unit will be in compliance with the applicable requirement by the time the Tier I operating permit is issued, or that Potlatch Forest Products Corporation provided a compliance plan in accordance with Section 314.10.

Potlatch Forest Products Corporation will submit annual compliance certifications during the term of the Tier I operating permit, unless more frequent certification is specified by an underlying applicable requirement or by the Department.

Responsible Corporate Official

  
Greg Cooper  
Plant Manager

  
Date



Department of Environmental Quality  
1410 N. Hilton  
Boise, ID 83706  
For assistance, call the Air Permit Hotline: 1-877-5PERMIT

Form #AQ-F-P004  
Revision: 1  
12/15/06

## AIR QUALITY TIER I OPERATING PERMIT APPLICATION

### SECTION 1: GENERAL INFORMATION

Company & Division Name:	Pottlatch Forest Products Corporation		
Company Mailing Address:	2200 Railroad Avenue		
City:	Saint Maries	State:	ID Zip: 83861
Company Environmental Contact Name:	Bernie Wilmarth		
Title:	Environmental Manager	Phone:	208.245.2585
Company Owner or Responsible Official Name:	Greg Cooperrider		
Title:	Plant Manager	Phone:	208.245.2585
Exact Plant Location:	Milltown Road, Saint Maries		
General Nature of Business:	Lumber Drying Division		
No. Full-time Employees:		Property Area (acres):	
Reason for Application:	<input type="checkbox"/> Initial Tier I permit to operate <input checked="" type="checkbox"/> Renewal Tier I permit to operate <input type="checkbox"/> Modification/Amendment of existing Tier I permit to operate <input type="checkbox"/> Change of ownership or location		
Distance to Nearest State Border (miles):	23 miles, WA		
Primary SIC:	2421	Secondary SIC:	
Plant Location County:	Benewah	Elevation (ft):	650 meters above sea level
UTM Zone:	11		
UTM (X) Coordinate (km):	533.9	UTM (Y) Coordinate (km):	5240.9

LIST ALL FACILITIES WITHIN THE STATE THAT ARE UNDER YOUR CONTROL OR UNDER COMMON CONTROL AND HAVE EMISSIONS TO THE AIR. IF NOT, SO STATE.

Name of Facility	Location of Other Facility
Idaho Pulp and Paper Division	Lewiston
Consumer Products Division	Lewiston
Lewiston Wood Products	Lewiston
St. Maries Complex	St. Maries
Post Falls Particleboard	Post Falls
Owner or Responsible Official	Greg Cooperrider
Title of Responsible Official	Plant Manager

#### Certification of Truth, Accuracy, and Completeness (by Responsible Official)

I hereby certify that based on information and belief formed after reasonable inquiry, the statements and information contained in this and any attached and/or referenced document(s) are true, accurate, and complete in accordance with IDAPA 58.01.01.123-124.

Greg Cooperrider  
Responsible Official Signature

Plant Manager  
Responsible Official Title

6/22/07  
Date

GREG COOPERRIDER  
Print or Type Responsible Official Name

## SECTION 2: FUEL-BURNING EQUIPMENT

DEQ USE ONLY	
DEQ Plant ID Code _____	DEQ Stack ID Code _____
DEQ Building Code _____	Primary SCC _____
DEQ Segment Code _____	Secondary SCC _____
DEQ Process Code _____	

### SECTION 2, PART A.

#### GENERAL INFORMATION

Process Code or Description	Hurst Boiler		
Stack Description			
Building Description	Boiler		
Manufacturer	Hurst	Model	HYB-6500-150
		Date Installed	1987
		Date Last Modified	

#### RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

Million BTU/hr	48	1000 lbs Steam/hr	34.5	Kilowatts	Horsepower
Burner Type	07	% Used for Process	100		
	(see note below)	% Used for Space Heat			

#### FUEL DATA

Parameter	Primary Fuel	Units	Secondary Fuel	Units
Fuel Code (see note below)	15		16	
Percent Sulfur	Negligible		Negligible	
Percent Ash	Not Available		Not Available	
Percent Nitrogen				
Percent Carbon				
Percent Hydrogen				
Percent Moisture				
Heat Content (BTU/unit)	4,500	lb	4,500	lb
Maximum Hourly Combustion Rate (units/hr)	10,627	lb	10,627	lb
Normal Annual Combustion Rate (units/hr)				

Note:

Burner Type: 01 - Spread stoker  
 02 - Chain or Traveling Grate  
 03 - Hand Fired  
 04 - Cyclone Furnace  
 05 - Wet Bottom (pulverized coal)  
 06 - Dry Bottom (pulverized coal)  
 07 - Underfeed Stokers  
 08 - Tangentially Fired  
 09 - Horizontally Fired  
 10 - Axially Fired  
 11 - Other (specify): \_\_\_\_\_

Fuel Codes: 01 - Natural Gas  
 02 - #1 or #2 Fuel Oil  
 03 - #4 Fuel Oil  
 04 - #5 or #6 Fuel Oil  
 05 - Used Oil  
 06 - Wood Chips  
 07 - Wood Bark  
 08 - Wood Shavings  
 09 - Sander Dust  
 10 - Subbituminous Coal  
 11 - Bituminous Coal  
 12 - Anthracite Coal  
 13 - Lignite Coal  
 14 - Propane  
 15 - Other (specify): Hog Fuel  
 16 - Other (specify): Production Residuals (wood waste and manufacturing residuals)

## SECTION 2, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter
Dec – Feb
Mar – May
Jun – Aug
Sep – Nov

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	52

### POLLUTION CONTROL EQUIPMENT

Parameter
Type
Type Code (from APP.A)
Manufacturer
Model Number
Pressure Drop (in. of water)
Wet Scrubber Flow (GPM)
Baghouse Air/Cloth Ratio (FPM)

Primary
Multiclone
007
Hurst

Secondary
Electrostatic Precipitator
McGill
Air Clean Intercept Model 2-75

### VENTILATION AND BUILDING/AREA DATA

Enclosed?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Hood Type (from APP.B)	
Minimum Flow (acfm)	
Percent Capture Efficiency	
Building Height (ft)	
Building/Area Length (ft)	
Building/Area Width (ft)	

### STACK DATA

Ground Elevation (ft)	
UTM X Coordinate (km)	
UTM Y Coordinate (km)	
Stack Type (see note below)	02
Stack Exit Height from Ground Level (ft)	50
Stack Exit Diameter (ft)	3.16
Stack Exit Gas Flowrate (acfm)	22,000
Stack Exit Temperature (°F)	450

### AIR POLLUTION EMISSIONS

Pollutant	CAS#	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					lbs/hr	tons/yr	Reference
PM							
PM <sub>10</sub>			91%	5.7			
SO <sub>2</sub>				0.2			
CO				6.5			
NO <sub>x</sub>				8.4			
VOC				0.1			
Lead							
For additional HAPs, see permit							

**Note:** Stack Type: 01 – Downward; 02 – Vertical (uncovered); 03 – Vertical (covered); 04 – Horizontal; 05 – Fugitive  
Emission Factor in lbs/units. Please use same hourly units given in fuel data section.

## SECTION 3: PROCESS AND MANUFACTURING OPERATIONS

DEQ USE ONLY	
DEQ Plant ID Code _____	DEQ Stack ID Code _____
DEQ Building Code _____	Primary SCC _____
DEQ Segment Code _____	Secondary SCC _____
DEQ Process Code _____	

### SECTION 3, PART A.

#### GENERAL INFORMATION

Process Code or Description 4 Dry Kilns  
 Stack Description \_\_\_\_\_  
 Building Description Kilns  
 Manufacturer Coe/Moore Model \_\_\_\_\_ Date Installed \_\_\_\_\_  
 Date Last Modified \_\_\_\_\_

#### PROCESSING DATA

Process Stream	Material Description	Maximum Hourly Rate	Actual Hourly Rate	Units
Input	various lumber types	See section 3	variable	1000 Board feet
Product Output				
Waste Output				
Recycle				

\* Maximum hourly rate depends on lumber species type. See permit for details.

#### POTENTIAL HAPS IN PROCESS STREAM(S)

HAP Description	HAP CAS Number	Fraction In Input Stream by Weight	Fraction In Product Stream by Weight	Fraction in Waste Stream by Weight	Fraction in Recycle Stream by Weight
see permit application section 3					

## SECTION 3, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter	
Dec – Feb	25
Mar – May	25
Jun – Aug	25
Sep – Nov	25

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	365

### POLLUTION CONTROL EQUIPMENT

Parameter	Primary	Secondary
Type		
Type Code (from APP.A)		
Manufacturer		
Model Number		
Pressure Drop (in. of water)		
Wet Scrubber Flow (GPM)		
Baghouse Air/Cloth Ratio (FPM)		

### VENTILATION AND BUILDING/AREA DATA

Enclosed?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Hood Type (from APP.B)	
Minimum Flow (acfm)	
Percent Capture Efficiency	
Building Height (ft)	
Building/Area Length (ft)	
Building/Area Width (ft)	

### STACK DATA

Ground Elevation (ft)	
UTM X Coordinate (km)	
UTM Y Coordinate (km)	
Stack Type (see note below)	02
Stack Exit Height from Ground Level (ft)	23.6
Stack Exit Diameter (ft)	21"x21"
Stack Exit Gas Flowrate (acfm)	1456/kiln
Stack Exit Temperature (°F)	180

### AIR POLLUTION EMISSIONS

Pollutant	CAS #	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					lbs/hr	tons/yr	Reference
PM							
PM <sub>10</sub>		see permit		1.6			
SO <sub>2</sub>							
CO							
NO <sub>x</sub>							
VOC		see permit		21.9			
Lead							

Note: Stack Type: 01 – Downward; 02 – Vertical (uncovered); 03 – Vertical (covered); 04 – Horizontal; 05 – Fugitive Emission Factor in lbs/units. Please use same hourly units given in fuel data section.

## **APPENDIX C**

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### **Insignificant Activities**

## **Insignificant Activities**

Several emission sources and activities at the Facility are considered categorically exempt insignificant emission units and activities under IDAPA 58.01.01.317.01.a and as such need not be addressed in this application in accordance with IDAPA 58.01.01.317.01.a(i), and do not require a permit under Idaho Code § 39-115(1)(b). However, units and activities that qualify as “insignificant on the basis of size or production rate” must be listed in the permit application (IDAPA 58.01.01.317.01.b). The following table identifies those emission units that are exempt on the basis of size or production rate.

<b>Emissions Unit</b>	<b>Activity</b>	<b>Insignificant Activities IDAPA 58.01.01.317.01 Citation</b>
ME-86 LDD	Hurst boiler pop-off valve	a.i.77
ME-86 LDD	Hurst boiler blow-down pit	a.i.80
ME-86 LDD	Hog-fuel pile	b.i.30
ME-86 LDD	1,000-gallon diesel tank	b.i.2
ME-86 LDD	Diesel fuel pump (electric)	b.i.2
ME-86 LDD	Maintenance welding	a.i.64. and b.i.9



## **APPENDIX D**

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# **Requirement-Specific Compliance Certification and Demonstration Methodology**

## Requirement-Specific Compliance Certification and Demonstration at the Time of Application Submission

Permit Conditions	Parameter	Permit Limit/ Standard Summary	Compliance Status	Monitoring and Recordkeeping Requirements
<b>Facility-Wide Conditions</b>				
2.1	Fugitive dust	Reasonable control	In	2.2, 2.3, 2.4, 2.10, 2.11
2.2	Monitor/Record	Monitor and maintain records of methods used to control fugitive dust.	In	
2.3	Monitor/Record	Monitor and record fugitive dust complaints	In	
2.4	Inspections	Monthly inspections, facility-wide of potential fugitive dust sources	In	
2.5	Odors	Reasonable control	In	2.6, 2.10, 2.11
2.6	Monitor/Record	Record odor complaints	In	
2.7	Visible emissions	20% opacity for no more than three minutes in any 60-minute period	In	2.8, 2.10, 2.11
2.8	Inspections	Monthly, facility-wide of potential visible emission sources	In	
2.9	Excess emissions	Compliance with IDAPA 58.01.01.130-136	In	2.9-2.9.5, 2.10, 2.11
2.10	Recordkeeping	Maintain records to assure compliance	In	
2.11	Reports	Reports and certifications within 30 days of end of report period	In	
2.12	Compliance testing	Schedule for submitting protocol and reporting results	In	2.10, 2.11, 2.13
2.13	Test methods	EPA reference test methods prescribed	In	2.10, 2.11, 2.12
2.14	Fuel-burning equipment	Grain-loading standards	In	2.10, 2.11
2.15	Open burning	Compliance with IDAPA 58.01.01.600-616	In	2.10, 2.11
2.16	Renovation or demolition	Compliance with 40 CFR 61, Subpart M	In	2.10, 2.11
2.17	Chemical accidental release	Compliance with 40 CFR 68	In	2.10, 2.11
2.18	Recycling and emissions reductions	Compliance with 40 CFR 82, Subpart F	In	2.10, 2.11
<b>Hurst Boiler</b>				
3.1	Grain loading	0.08 gr/dscf at 8% oxygen	In	3.3, 3.5, 3.6, 3.9, 3.10, 3.18

Permit Conditions	Parameter	Permit Limit/ Standard Summary	Compliance Status	Monitoring and Recordkeeping Requirements
3.2	Visible emissions	20% opacity for no more than three minutes in any 60-minute period	In	2.8, 3.3, 3.5, 3.6, 3.10, 3.18
3.3	Steam production rate	120% of the steam production rate measured in the most recent compliance test	In	3.4, 3.8
3.4	Monitoring	Install/operate devices to monitor steam and ESP amperage and voltage	In	
3.5	ESP T/R power	Maintained in accordance with O&M manual	In	
3.6	Periodic PM testing	Once or annually depending on measured grain loading	In	
3.7	Optional compliance tests	May conduct additional tests to increase steam limit	In	
3.8	Fuel Sample	Fuel analysis and steam and ESP monitoring during performance test	In	
3.9	Boiler PM controls	Use ESP and multiclone and maintain in good working order	In	
3.10	O&M manual	Develop O&M manual for ESP and update for other equipment	In	
3.11	Maintain monitoring eqpt	Including maintaining necessary parts for repairs	In	
3.12	Monitor	Collect data from ESP power input monitor	In	File review
3.13	CAM detection of exceedance or excursion	Restore operation of Hurst boiler, multiclone, ESP as expeditiously as practicable	In	
3.14	CAM monitoring criteria	Notify DEQ if excursion criteria warrant updating	In	
3.15	QIP	Develop and implement if control is not operating as specified in O&M manual > 5% of time	In	
3.16	CAM recordkeeping	Monitor and record average power input	In	File review
3.17	CAM recordkeeping	Record instances of excursions	In	File review
3.18	Maintenance and Inspections	ESP within O&M limits	In	
3.20	Optional compliance tests	Schedule for submitting protocol and report of results	In	
3.21	Reports	Report for monitoring required by 40 CFR 64 (CAM)	In	
3.22	Recordkeeping	Compliance for CAM	In	File review
3.23	CAM definitions	Definitions of exceedance and excursion	In	
3.24	Testing	PM source test if AVC settings changed on ESP	In	
<b>Lumber Drying Kilns</b>				
4.1	PM	Process weight	In	2.10, 2.11, 4.3
4.2	Visible emissions	20% opacity for no more than three minutes in any 60-minute period	In	2.10, 2.11, 4.3

Permit Conditions	Parameter	Permit Limit/ Standard Summary	Compliance Status	Monitoring and Recordkeeping Requirements
4.3	Observations	Monthly one-minute observations for visible emissions	In	File review
4.4	Monitor and Record	Throughput of kilns each month	In	File review
<b>General Provisions</b>				
1	General Compliance.			
2-3	General Compliance.			
4-5	Reopening.			
6	Property Rights.			
7-8	Information Requests.			
9	Severability			
10-11	Changes requiring permit revision or notice.			
12-13	Federal and state enforceability.			
14	Inspection and entry.			
15	New requirements during permit term.			
16	Fees.			
17	Certification.			
18	Renewal.			
19	Permit Shield.			
20	Compliance Schedule and Progress Reports.			
21	Periodic Compliance Certification.			
22	False Statements.			
23	No Tampering.			
24	Semi-annual monitoring reports.			
25	Reporting Deviations and Excess Emissions.			
26	Permit Revision Not Required.			
27	Emergency.			

## **APPENDIX E**

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### **Potentially Applicable Regulations**

## I. Federal Regulatory Requirements

Emissions Unit	Citation under Federal Regulations	Applicable Requirement	Description of Requirements or Standards
Facility Wide	40 CFR Part 52	Yes	Approval and Promulgation of Implementation Plans; Rules for Prevention of Significant Deterioration. <ul style="list-style-type: none"> <li>If the Lumber Drying Division is considered part of the St. Maries Complex, it is a major source with respect to the Prevention of Significant Deterioration program. If the facilities are considered separate sources, the Lumber Drying Division is a minor source with respect to PSD regulations.</li> </ul>
Tanks	40 CFR Part 60 Subpart Kb	No	Standards of Performance for New Stationary Sources. No tanks of the size regulated by Subpart Kb are at the facility.
Boiler	40 CFR Part 60 Subparts Db	No	The firing capacity of the Hurst boiler is less than 100 MMBtu/hr.
Boiler	40 CFR Part 60 Subparts Dc	No	The Hurst boiler was installed before the 1989 applicability date and has not been modified
Facility Wide	40 CFR Part 61, Subpart M	Yes	National Emission Standards for Hazardous Air Pollutants, Asbestos. <ul style="list-style-type: none"> <li>PFPC will comply with the Asbestos NESHAP if any asbestos renovation occurs on-site.</li> </ul>
Facility Wide	40 CFR Part 63, Subpart A	Yes	National Emission Standards for Hazardous Air Pollutants for Source Categories
Kilns	40 CFR Part 63, Subpart DDDD	Yes	National Emission Standards for Hazardous Air Pollutants for Plywood and Composite Wood Products <ul style="list-style-type: none"> <li>If the Lumber Drying Division is considered part of the St. Maries Complex, it is a major source with respect to MACT and is subject to the PCWP MACT. If the facilities are considered separate sources, the Lumber Drying Division may be a minor source and not subject to the PCWP MACT.</li> </ul>
Boiler	40 CFR Part 63, Subpart DDDDD	Yes	National Emission Standards for Hazardous Air Pollutants for Industrial , Commercial, and Institutional Boilers and Process Heaters <ul style="list-style-type: none"> <li>If the Lumber Drying Division is considered part of the St. Maries Complex, it is a major source with respect to MACT and is subject to the Boiler MACT. If the facilities are considered separate sources, the Lumber Drying Division may be a minor source and not subject to the Boiler MACT.</li> </ul>
Facility Wide	40 CFR Part 68	No	Chemical Accident Prevention Provisions <ul style="list-style-type: none"> <li>The Facility is not currently subject to this regulatory program. Per 68.10(a), the facility must comply with the Provisions' requirements as soon as the quantity of a regulated substance is above its threshold quantity in a process.</li> </ul>
Facility Wide	40 CFR Part 70	Yes	Title V Operating Permit Program. <ul style="list-style-type: none"> <li>If the Lumber Drying Division is considered part of the St. Maries Complex, it is a major source with respect to Title V. If the facilities are considered separate sources, the Lumber Drying Division may be a minor source and not subject to Title V.</li> </ul>
Facility Wide	40 CFR Part 72	No	Acid Rain Program <ul style="list-style-type: none"> <li>The Facility is not subject to these provisions because it is not a utility electric generating station</li> </ul>

Emissions Unit	Citation under Federal Regulations	Applicable Requirement	Description of Requirements or Standards
Facility Wide	40 CFR Part 82, Subpart F	Yes	Recycling and Emission Reductions related to refrigerants <ul style="list-style-type: none"> <li>The Facility is subject to this program</li> </ul>

## II. Idaho Regulatory Requirements IDAPA 58.01.01 and 40 CFR § 52.670

Applicable Equipment	Citation under IDAPA 58.01.01	Applicable Requirement	Description of Requirements or Standards
Facility Wide	121	Yes	COMPLIANCE REQUIREMENTS BY DEPARTMENT
Facility Wide	122	Yes	INFORMATION ORDERS BY THE DEPARTMENT
Facility Wide	123	Yes	CERTIFICATION OF DOCUMENTS
Facility Wide	124	Yes	TRUTH, ACCURACY AND COMPLETENESS OF DOCUMENTS
Facility Wide	125	Yes	FALSE STATEMENTS
Facility Wide	126	Yes	TAMPERING
Facility Wide	130	Yes	STARTUP, SHUTDOWN, SCHEDULED MAINTENANCE, SAFETY MEASURES, UPSET AND BREAKDOWN.
Facility Wide	131	Yes	EXCESS EMISSIONS. • Applicability.
Facility Wide	132	Yes	CORRECTION OF CONDITION. • Excess emission events must be corrected with all practical speed.
Facility Wide	133	Yes	STARTUP, SHUTDOWN AND SCHEDULED MAINTENANCE REQUIREMENTS. • Prescribes procedures that apply when startup, shutdown, or scheduled maintenance is expected to result in an excess emissions event.
Facility Wide	134	Yes	UPSET, BREAKDOWN AND SAFETY REQUIREMENTS. • Prescribes procedures for when upset or breakdown or the initiation of safety measures is expected to result in an excess emissions event.
Facility Wide	135	Yes	EXCESS EMISSIONS REPORTS. • Written reports for each excess emissions must be submitted to the Department within 15 days after the beginning of the event.
Facility Wide	136	Yes	EXCESS EMISSIONS RECORDS. • Records of excess emissions must be maintained for 5 years.
Facility Wide	155	Yes	CIRCUMVENTION. • Prohibits concealing emissions.
Facility Wide	156	Yes	TOTAL COMPLIANCE • Requires compliance with all rules when more than one applies.
Facility Wide	157	Yes	TEST METHODS AND PROCEDURES. • Establishes procedures and requirements for test methods and results.
Facility Wide	161	Yes	TOXIC SUBSTANCES. (state-only) • Toxic contaminants shall not be emitted as to injure or unreasonably affect human or animal life or vegetation.



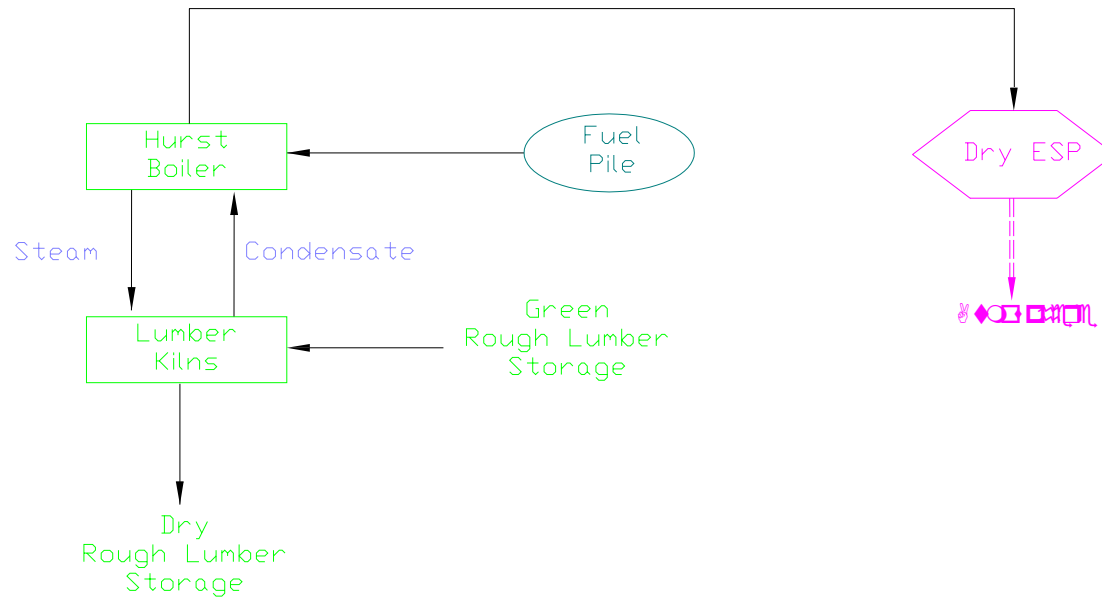
Applicable Equipment	Citation under IDAPA 58.01.01	Applicable Requirement	Description of Requirements or Standards
Facility Wide	200	Yes	PROCEDURES AND REQUIREMENTS FOR PERMITS TO CONSTRUCT. • The facility must submit a PTC application before adding or modifying an air pollution source unless the modification is exempt or it is allowed by an established FEC.
Facility Wide	201	Yes	PERMIT TO CONSTRUCT REQUIRED.
Facility Wide	202	No	APPLICATION PROCEDURES
Facility Wide	203	No	PERMIT REQUIREMENTS FOR NEW AND MODIFIED STATIONARY SOURCES
Facility Wide	204	No	PERMIT REQUIREMENTS FOR NEW MAJOR FACILITIES OR NEW MAJOR MODIFICATIONS IN NONATTAINMENT AREAS
Facility Wide	205	No	PERMIT REQUIREMENTS FOR NEW MAJOR FACILITIES OR NEW MAJOR MODIFICATIONS IN ATTAINMENT OR UNCLASSIFIABLE AREAS
Facility Wide	206	No	OPTIONAL OFFSETS FOR PERMITS TO CONSTRUCT
	207	No	REQUIREMENTS FOR EMISSION REDUCTION CREDIT
Facility Wide	208	No	DEMONSTRATION OF NET AIR QUALITY BENEFIT
	209	No	PROCEDURE FOR ISSUING PERMITS
Facility Wide	210	Yes	DEMONSTRATION OF PRECONSTRUCTION COMPLIANCE WITH TOXIC STANDARDS.(state-only)
Facility Wide	211	No	CONDITIONS FOR PERMITS TO CONSTRUCT.
Facility Wide	212	Yes	OBLIGATION TO COMPLY.
Facility Wide	213	Yes	PRE-PERMIT CONSTRUCTION.
Facility Wide	214	Yes	DEMONSTRATION OF PRECONSTRUCTION COMPLIANCE FOR NEW AND RECONSTRUCTED MAJOR SOURCES OF HAZARDOUS AIR POLLUTANTS
Facility Wide	300	Yes	PROCEDURES AND REQUIREMENTS FOR TIER I OPERATING PERMITS. • The Facility is a major source with respect to Tier I operating permit program.
Facility Wide	301	Yes	REQUIREMENT TO OBTAIN TIER I OPERATING PERMIT
Facility Wide	311	Yes	STANDARD PERMIT APPLICATIONS
Facility Wide	312	Yes	DUTY TO APPLY
Facility Wide	313	Yes	TIMELY APPLICATION
Facility Wide	314	Yes	REQUIRED STANDARD APPLICATION FORM AND REQUIRED INFORMATION
Facility Wide	315	Yes	DUTY TO SUPPLEMENT OR CORRECT APPLICATION
Facility Wide – Insignificant Sources	317	Yes	INSIGNIFICANT ACTIVITIES
Facility Wide	322	Yes	STANDARD CONTENTS OF TIER I OPERATING PERMITS
Facility Wide	332	Yes	EMERGENCY AS AN AFFIRMATIVE DEFENSE REGARDING EXCESS EMISSIONS
Facility Wide	368	Yes	EXPIRATION OF PRECEDING PERMITS
Facility Wide	369	Yes	TIER I OPERATING PERMIT RENEWAL
Facility Wide	380	Yes	CHANGES TO TIER I OPERATING PERMITS
Facility Wide	387	Yes	REGISTRATION AND REGISTRATION FEES
Facility Wide	388	Yes	APPLICABILITY
Facility Wide	389	Yes	REGISTRATION
Facility Wide	390	Yes	REQUEST FOR INFORMATION

Applicable Equipment	Citation under IDAPA 58.01.01	Applicable Requirement	Description of Requirements or Standards
Facility Wide	391	Yes	REGISTRATION FEE
Facility Wide	392	Yes	REGISTRATION BY THE DEPARTMENT
Facility Wide	393	Yes	PAYMENT DUE
Facility Wide	400-462	Yes	PROCEDURES AND REQUIREMENTS FOR TIER II OPERATING PERMITS The facility is governed by a Tier II operating permit.
Facility Wide	500	No	REGISTRATION PROCEDURES AND REQUIREMENTS FOR PORTABLE EQUIPMENT
Facility Wide	510-516	Yes	STACK HEIGHTS AND DISPERSION TECHNIQUES
Facility Wide	585	Yes	TOXIC AIR POLLUTANTS NON-CARCINOGENIC INCREMENTS (STATE-ONLY)
Facility Wide	586	Yes	TOXIC AIR POLLUTANTS CARCINOGENIC INCREMENTS (STATE-ONLY)
Boilers, Tanks	590	No	NEW SOURCE PERFORMANCE STANDARDS <ul style="list-style-type: none"> <li>No NSPS currently apply to the facility</li> </ul>
Facility Wide	591	Yes	NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS
Facility Wide	600	Yes	RULES FOR CONTROL OF OPEN BURNING
Facility Wide	625	Yes	VISIBLE EMISSIONS. <ul style="list-style-type: none"> <li>A person shall not emit an air pollutant from any point of emission for a period or periods aggregating more than 3 minutes in any 60-minute period that is greater than 20% opacity.</li> <li>Prescribes test methods and procedures for performance testing.</li> </ul>
Facility Wide	650	Yes	RULES FOR CONTROL OF FUGITIVE DUST.
Facility Wide	651	Yes	GENERAL RULES. <ul style="list-style-type: none"> <li>Reasonable precautions shall be taken to prevent particulate matter from becoming airborne.</li> </ul>
Boilers	675-681	Yes	FUEL BURNING EQUIPMENT – PARTICULATE MATTER. STANDARDS
Manufacturing Processes	700-703	Yes	PARTICULATE MATTER –PROCESS WEIGHT LIMITATIONS. <ul style="list-style-type: none"> <li>Established particulate matter emission limits based on process throughput.</li> </ul>
Facility Wide	728	Yes	RULES FOR SULFUR CONTENT OF FUELS: DISTILLATE FUEL OIL
Facility Wide	776	Yes	GENERAL RULES. (state-only) <ul style="list-style-type: none"> <li>Odorous gases, liquids or solids shall not be emitted as to cause air pollution.</li> </ul>

## **APPENDIX F**

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### **Process Flow Diagram**



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